

REMARKS

Claim Rejections - 35 USC § 102

Claims 1-4, 7-9, 11-15, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by D'Amato (US 6440277). In regard to claim 1, the Examiner states D'Amato ('277) teaches a method of applying patterned materials comprising: a) providing a flexible continuous substrate (not numbered; figures 10 and 13; column 5 lines 14-27) b) providing one or more application stations (figure 10; 63, 64; column 11 line 27 to column 12 line 18), each application station having: i) one or more stationary sources of material (see figure 10; column 11 line 27 to column 12 line 18), ii) a supply of discrete patterned masks for defining a pattern of material to be applied to the substrate (68; figures 10 and 5a-5e; column 10 lines 4-43) iii) a means for attaching the discrete patterned masks to the substrate (figure 5a; column 10 lines 4-25); iv) means for transporting the substrate and the patterned mask in registration past the one or more stationary sources of material (not numbered see figures 10 and 13), and v) means for delivering the mask to the transporting means (not numbered, see figure 10 and 5a-5e); and c) transporting the substrate and the masks past the one or more application stations (see figure 10). This rejection is respectfully traversed.

Contrary to the Examiner's assertions, the present invention is distinguished from D'Amato, as D'Amato does not disclose a supply of discrete patterned masks (plural) for defining a pattern of material to be applied to the substrate, nor means for attaching discrete patterned masks to the substrate. Element 68 referenced by the Examiner is a single metallizing image belt, not a supply of discrete masks. Further, belt 68 (as well as similar referenced belt mask 15 of Figs. 5A/5B) is not attached to the substrate (101 in f Figs. 5A/5B). Thus, D'Amato clearly does not anticipate the present invention, and reconsideration of this rejection is accordingly respectfully requested.

While D'Amato has been distinguished from the present invention as originally claimed as discussed above, claim 1 has been amended for further clarity. Specifically, it has been clarified that the one or more stationary sources of material provided in b)i) are sources of material to be patterned in manufacture of a flat panel light source. Support for such amendment is found generally

through the specification, and in the preamble of original claim 1 itself. Additionally, original claim part b)v) has been moved and redesignated as b)iii), with clarification that the means for delivering the masks one at a time are means for delivering the masks one at a time into engagement with the substrate.

Support for such amendment is found, e.g., at page 4, lines 7-8. Original claim parts b)iii) and b)iv) have accordingly been redesignated as parts b)iv) and b)v), respectively. Finally, claim part c) has been amended to more clearly state that when transporting the substrate and the masks past the one or more application stations, material from the one or more sources is applied through the masks and onto the substrate to form a pattern of material in a flat panel light source.

Support for such amendment is found generally throughout the specification, and specifically at page 5, lines 9-12. Accordingly, as such features are no longer only in the claim preamble, they cannot be dismissed and not given patentable weight by the Examiner.

Claims 3, 4, and 23 have also been amended to more clearly describe the claimed embodiments, which amendments are clearly supported as such embodiments clearly respectively require at least two stationary sources and at least two application stations. Claim 14 has been amended to be directed towards an embodiment wherein the supply of discrete patterned masks comprises a stack of masks. Support for such amendment is found, e.g., in the various Figures, as well as page 4, lines 6-8. Claim 15 has been amended to more clearly describe the claimed embodiments, with support for such amendments found, e.g., in Figs. 8 and 9 and associated text at page 6, lines 17+.

While the additionally rejected dependent claims are believed distinguished from D'Amato for at least the same reasons as claim 1, the Examiner's further comments are believed in error at least with respect to the following.

With respect to claim 2, there is no support for the Examiner's statement that D'Amato ('277) teaches the stationary source (54 figure 10) is a linear source arranged orthogonal to the direction of transport (see figure 10). Element 54 referenced by the Examiner is an ion bombardment unit in a plasma etching section 64, not a source of material to

be patterned in an application station, and there is further no disclosure that it is a linear source orthogonal to the direction of transport.

With respect to claims 3 and 4, there is no support for the Examiner's statement that D'Amato ('277) teaches the stationary sources and application stations are arranged in parallel with respect to the direction of transport. The Examiner's attention is directed, e.g., to Applicant's Fig. 7, which illustrates multiple sources 14 of application stations arranged in parallel with respect to the direction of transport A.

With respect to claim 7, there is no support for the Examiner's statement that D'Amato ('277) teaches the mask is a rigid sheet. Rather, belt 68 referenced by the Examiner is a flexible belt.

With respect to claim 8, while D'Amato ('277) teaches use of a flexible belt, there is no teaching with respect to a supply of discrete patterned masks that are delivered one at a time into engagement with a substrate, where the masks are each discrete flexible sheets.

With respect to claim 11, there is no support for the Examiner's statement that D'Amato ('277) teaches the masks are discarded after a single use. Column 7 lines 32-33 instead explains the masks are designed for cleaning and re-use.

With respect to claim 15, there is no support for the Examiner's statement that D'Amato ('277) teaches the step of shifting the mask relative to the substrate in a direction perpendicular to the direction of transport between sources. When the mask belt rolls over the transporting means, it is rotated around the drive wheels, rather than shifted in a perpendicular direction. In any event, the claimed perpendicular shift has been clarified to more explicitly be directed towards shifting the mask such that material is applied through the mask in identical patterns to different locations across the substrate, such as is more fully explained with respect to Figs. 8 and 9, which feature is clearly not disclosed in D'Amato.

Claim Rejections - 35 USC § 103

Claims 5, 6, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over D'Amato (US 6440277) in view of Codama (US 6091196). The Examiner states D'Amato ('277) teaches all the limitations set

forth, as described above, except an OLED flat panel light source is made from the method given, and the materials are light emissive materials, semiconductor materials, conductors, or dielectrics. The Examiner further states that Codama ('196) teaches a method of manufacturing a flat panel light source, which is an OLED (column 1 lines 20-25), by using deposition method that includes the use of masks (8; figures 2a-2f; column 4 line 32 to column 6 line 18; column 7 lines 40-61) to manufacture light emissive materials, semiconductor materials, conductors, or dielectrics onto a substrate (5) in order to more easily manufacture the device (column 1 lines 20-35), and that it would have been obvious at the time of the invention to one of ordinary skill in the art to modify the method of manufacturing patterned materials as taught by D'Amato with the deposition method as taught by Codama, with the motivation to combine being to more easily manufacture the device. This rejection is respectfully traversed.

As explained above, contrary to the Examiner's assertions, D'Amato does not teach the basic invention of claim 1. Further, Codama does not overcome the basic deficiencies with respect to the D'Amato reference. Thus, even if the method of D'Amato were to be somehow combined with the teachings of Codama, the present invention would not be obtained. Accordingly, a prima facie case of obviousness has not been established, and reconsideration of this rejection is respectfully requested.

Claims 16 -22 are rejected under 35 U.S.C. 103(a) as being unpatentable over D'Amato (US 6440277) in view of Baude et al (US 20030150384). In regard to claims 16, 17, 18, and 19, the Examiner states Baude et al ('384) teach the mask is made of a magnetic material (10L; figure 8; paragraphs 38 and 39); a reference surface for locating the substrate with respect to the source of material (90; figure 9a; paragraphs 42 and 43); the means for attaching the mask (10L) to the substrate (52) is a magnet located on an opposite side of the substrate from the mask (82; see figure 8); the magnet is a fixed magnet (paragraphs 38 and 39); and the magnet is conveyed along with the substrate (paragraphs 38 and 39) in order to reduce costs and improve performance (paragraph 6), and that it would have been obvious at the invention to one of ordinary skill in the art to combine the method of manufacturing

patterned materials as taught by D'Amato with the mask of Baude, with motivation to combine being to reduce costs and improve performance. In regard to claims 20-22, the Examiner states Baude et al ('384) teaches the means for attaching the mask to the substrate is a mechanical clamp (figures 9a and 9b; paragraphs 42-43) that includes means for maintaining the substrate in a planar configuration (see figure 9a); the clamp includes a rectangular frame having clamps on two opposing edges (see figure 9a) in order to reduce costs and improve performance (paragraph 6), and that it would have been obvious at the invention to one of ordinary skill in the art to combine the method of manufacturing patterned materials as taught by D'Amato with the mask of Baude, with motivation to combine being to reduce costs and improve performance. This rejection is respectfully traversed.

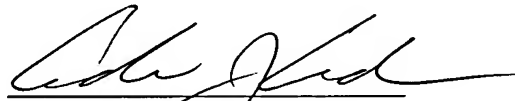
As explained above, contrary to the Examiner's assertions, D'Amato does not teach the basic invention of claim 1. Further, Baude does not overcome the basic deficiencies with respect to the D'Amato reference. Additionally, the Examiner's interpretation of the teachings of Baude are also erroneous. In particular, in regard to the rejection of claims 16, 17, 18, and 19, there is no support for the Examiner's apparent interpretation that element 90 is a reference surface for locating the substrate with respect to the source of material employed along with the use of a mask made of a magnetic material. Rather, element 90 is a stretching unit for use with a mask made from an elastic material. There is further no support for the Examiner's statement that the magnet of Baude is conveyed along with the substrate in any of paragraphs 38, 39, and 6 cited for such feature. To the contrary, there appears to be no teaching in Baude of employing the disclosed magnetic holding embodiment in combination with a continuous support which is moved past a stationary source, and the Examiner has not explained how the cited teaching would direct the artisan to do so. Thus, it is clear a prima facie case of obviousness has not been established with respect to these claims, and reconsideration of this rejection is respectfully requested.

In regard to the rejection of claims 20-22, there is further no support for the Examiner's statement that Baude et al ('384) teaches the means for attaching the mask to the substrate is a mechanical clamp. Rather, cited Figs. 9a and 9b and paragraphs 42-43 relate to a mask stretching unit 90. While mechanical clamps are disclosed as part of the stretching unit 90, they are simply

for holding the mask alone, and are not disclosed for attaching the mask to the substrate. Paragraph 42 rather merely states that the deposition substrate can be placed in proximity with the aperture mask. Thus, it is clear a prima facie case of obviousness has also not been established with respect to these claims, and reconsideration of this rejection is respectfully requested.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the Examiner is earnestly solicited. Should the Examiner believe any remaining issues may be resolved via a telephone interview, the Examiner is encouraged to contact Applicants' representative at the number below to discuss such issues.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.